CPV-2b type. In addition, two isolates indicated amino acid residue at positions 300 (Gly), 426 (Asp) and 555 (Val) of VP2 gene.

Conclusions: Two isolates from fecal of dogs were propagated in A72 cells. The isolates were designated as QIACPV1403 and QIACPV1404. Two isolates were classified into CPV-2b based on amino acid analysis and amino acid residues at position 300, 426 and 555 of VP2 gene were Glycine, Aspartic acid and Valine, respectively. According to previously report, most of the CPV vaccines strains used in Korea were identified as CPV-2 type. However, we identified that isolates in Korea were classified into CPV-2b. Therefore, we suggest that the efficacy of CPV commercial vaccine against CPV-2b type should be studied.

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P-030

Prevalence and Molecular Characterization of Diarrheagenic *Escherichia coli* Recovered from Pig and Cattle Slaughterhouses

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Introduction: Diarrheagenic *Escherichia coli* (DEC) was considered important food-borne pathogens, and recognized as a significant public health problem. In most case, contaminated animal products may be responsible for DEC infections in humans. The animal carrying and shedding DEC and other pathogenic microorganisms in slaughterhouses is the main source of contamination. The aim of this study was to investigate the isolation rate of diarrheagenic *Escherichiacoli* from pig and cattle slaughterhouses

Materials and Methods: The DEC was determined in pig carcasses (n = 245), cattle carcasses (n = 210), pig carcasses chilling room (n = 98), and cattle carcasses chilling room (n = 84), collected from 50 slaughterhouses in South Korea. In order to differentiate between the five categories of DEC, we selected the target genes: *stx1* and *stx2* for shiga toxin-producing *E. coli* (STEC); *eaeA* for enteropathogenic *E.coli* (EPEC); *ipaH* for enteroinvasive *E. coli* (EIEC); *elt, estp*, and *esth* for enterotoxigenic *E.coli* (ETEC); *aggR* for enteroaggregative *E. coli* (EAEC). The antibiotic susceptibility of DEC isolates was determined by the disk diffusion method according to NCCLS (National Committee for Clinical Laboratory Standards).

Results: A total of 14 DEC isolates were isolated from 12 slaughterhouses; 2of 245 of pig carcasses (0.82%), 8 of 210 of cattle carcasses (3.81%), 2 of 98of pig carcasses chilling room samples (2.04%), and 2 of 84 of cattle carcasses chilling room samples (2.38%). Virulence genes of at least one PEC pathogroup was detected in 14 (2.20%) of the 637 samples, with 7 (1.10%) being positive for virulence genes of STEC, 6 (0.94%) of EPEC and 1(0.16%) of ETEC. The antibiotic resistance observed was with tetracycline, streptomycin and chloramphenicol (14.29%)followed by ciprofloxacin (7.14%).

Conclusions: Pig and cattle carcasses and their storage condition should bemonitored to prevent pathogenic *Escherichia coli*. The origin of infected slaughter animals should be identified and direct and cross-contamination of carcasses should be avoided by adhering to HACCP principles in association with good hygiene procedures (GHP).

P-031

Establishingquantitative Standards for Residual Alkaline Phosphatase in Pasteurized Milk

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Introduction: The alkaline phosphatase (ALP) assay is a rapid and convenient method for verifying milk pasteurization. Since colorimetric ALP assays rely on subjective visual assessments, their results are especially unreliable near the detection limits.

Materials and Methods: In this study, we attempted to establish quantitative criteria for residual ALP in milk by using a more objective method based on spectrophotometric measurements. Raw milk was heat-treated for 0, 10, 20, 30,and 40 min and then subjected to ALP assays.

Results: The quantitative criteria for residual ALP in the milk was determined as 2 μg phenol/mL of milk, which is just above the ALP value of milk samples heat-treated for 30 min.

Conclusions: These newly proposed methodology and criteria could facilitate the microbiological quality control of milk.

P-032

2,4,6-tribromophenol, One of BFR, Effect on GH3 Cell Related with Thyroid Function

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